

## Omaha Public Power District

1623 HARNEY

OMAHA, NEBRASKA 68102

TELEPHONE 536-4000 AREA CODE 402

July 27, 1979

Mr. Harold R. Denton, Director  
Office of Nuclear Reactor Regulation  
U. S. Nuclear Regulatory Commission  
Washington, D. C. 20555

Reference: Docket No. 50-285

Gentlemen:

The Omaha Public Power District received a letter from the Commission dated June 29, 1979, requesting that certain information be submitted in regard to the organization and qualifications of District personnel having responsibilities in connection with our Fort Calhoun Station. In response to this request, forty (40) copies of the requested information is herewith provided by attachment.

Sincerely,

*T. E. Short*  
T. E. Short  
Assistant General Manager

TES/KJM/BJH:cb

Attachment

cc: LeBoeuf, Lamb, Leiby & MacRae  
1333 New Hampshire Avenue, N. W.  
Washington, D. C. 20036

None

1/40

7908010

553

487 288

10



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## Attachment

Request IA. Provide an organizational chart showing each position for which the capabilities of the person filling the position are such that you could depend upon the individual to provide experienced management functions in the event of an accident. The persons filling these positions would provide management functions, at a senior level, in the areas of engineering management; logistics support; coordination of activities with local, state, and Federal agencies; communication networks; and overall accident response coordination. As further guidance in your selection of positions to show in the chart, the persons filling these positions should have the capability, authority, and responsibility to allocate, on a company-wide basis, the company's resources in their respective areas of responsibility, as needed.

Response An organizational chart is attached as Figure 1 showing each position (designated by asterisk) for which the capabilities of the person filling the position are such that they are depended upon to provide experienced management functions in the event of an accident.

Request IB. Briefly describe the functions, responsibilities, and authority associated with each of these positions.

Response Assistant General Manager

This position is accountable for planning, organizing, and directing the safe and efficient generation and maintenance of generating equipment to economically and reliably produce electricity to satisfy all customers and interconnection contract customer requirements. In addition, this position is accountable for the planning, organizing, and directing of company-wide regulatory affairs, fuel management, quality assurance and major projects.

### Section Manager - Operations

This position is responsible for the direction of all operations and maintenance in all generating stations to ensure that the system's electrical energy requirements are met and that the units are operated safely and efficiently.

### Section Manager - Technical Services

This position directs the development of technical systems, methods, procedures, and controls for maintaining the most economical and safe generation of electrical energy; assists in the development of new operating, test, and safety-related systems and/or procedures required in the operation of a nuclear generating station; and conducts independent reviews of operations and additions to plants to assure optimum efficiency and compliance with objectives and regulations.

Request IB.  
Response  
(continued)

Section Manager - Generating Station Engineering

This position manages and directs the activities of the Generating Station Engineering section to provide the requisite engineering and design support services necessary for the safe and efficient operation of the District's generating facilities, and provides the requisite engineering review services in support of new generating facilities to ensure that the District's interests are appropriately protected and to satisfy quality assurance policies and regulations.

Manager - Administrative Services

This position coordinates NRC licensing activities and serves as direct representative for NRC licensing activities, directs certain production operations training programs, and serves on the company's Safety Audit and Review Committee (SARC) assisting in performing SARC audits and reviews.

Division Manager - Environmental and Regulatory Affairs

This position is responsible for management of all phases of new construction licensing and permits, planning development, and directing the implementation of the quality assurance program, and management of environmental affairs for the District. The incumbent has the responsibility and authority to identify quality-related problems; to initiate, recommend, or provide solutions; and to verify the implementation and effectiveness of corrective action taken. He has the authority to stop work on design, procurement, fabrication, or installation of safety-related structures, systems, or components. He is also presently Chairman of the Safety Audit and Review Committee.

Request IC. Briefly describe the educational and experience background for the incumbent for each of the designated positions.

Response Assistant General Manager

Experience:

The incumbent has approximately 27 years of professional experience and has been responsible for various engineering assignments; serving as Plant Supervisor for fossil fired station; serving as Supervisor of Engineering, Manager of Production Engineering, Manager of Production, Division Manager-Production Operations; and serving in present position.

Education: B.S. - Mechanical Engineering

Request IC.  
Response  
(continued)

Section Manager - Operations

Experience:

The incumbent has approximately 19 years of professional experience and has been responsible for NRC licensing and startup of Fort Calhoun Station Unit No. 1; operational planning; engineering review, and equipment selection for nuclear station; serving as plant supervisor of fossil fired station; assisting in the supervision of startup and operation of fossil fired unit; and serving in present position.

Education: B.S. Mechanical Engineering  
M.S. Mechanical Engineering

Section Manager - Technical Services

Experience:

The incumbent has approximately 14 years of experience in nuclear related professional activities and has been responsible for serving as a licensed reactor operator and teaching assistant at an educational institution; providing assistance in core design at reactor vendor; serving as assistant to Reactor Engineer at nuclear station; serving as Reactor Engineer at nuclear station; serving as Manager of Reactor Analysis and Computer Services Departments; and serving in present position. Incumbent was licensed SRO at the Fort Calhoun Station.

Education: B.S. Engineering Sciences  
M.S. Nuclear Engineering  
Ph.D. Nuclear Engineering

Section Manager - Generating Station Engineering

Experience:

The incumbent has approximately 19 years of experience in nuclear related professional activities and has been responsible for mechanical engineering with large corporation; serving as reactor operator of research reactor; full-time teaching and research of at university; serving with the District in the position of Manager - Operations Technical Support Services; and serving in present position.

Education: B.S. Mechanical Engineering  
M.S. Nuclear Engineering  
Ph.D. Nuclear Engineering

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Request IC.  
Response  
(continued)

Manager - Administrative Services

Experience:

The incumbent has approximately 20 years of nuclear related professional experience and has been responsible for serving as reactor and unit operator at plutonium production reactor and prototype reactor; serving as shift supervisor and plant superintendent at nuclear plant; providing technical direction during construction and start up of nuclear unit; serving as operations supervisor during startup of nuclear unit; and serving in present position.

Education: College Level - 3 years business and engineering course work

Division Manager - Environmental and Regulatory Affairs

Experience:

The incumbent has approximately 29 years of professional experience equally divided between nuclear and nonnuclear specialties. The incumbent has been responsible for operation of navy nuclear plants; command of nuclear submarine repair tender; engineering and command of diesel powered submarines; other military management positions; and serving in present position.

Education: BSEE U.S. Naval Academy  
U.S. Naval Submarine School  
U.S. Naval War College  
U.S. A.E.C. Naval Command Course

Request IIA. Plant Staff

Describe the professional level technical resources available on your plant staff. The resources should cover all persons encompassed by the ANSI N18.1 categories of "Managers" and "Professional-Technical" and graduate engineers assigned to the plant staff. Other personnel may be included if you believe their level of expertise will be useful in performing necessary and unique functions for unusual events like the TMI-2 accident. This should be provided by notation on a plant staff organizational chart showing each position that would fall into these categories, the position title, and a brief description of the functions of the position. In addition, provide the following information for each of the individuals assigned to these positions:

1. Briefly describe educational background indicating formal education and training.
2. Briefly describe applicable work experience in the particular field, with emphasis on nuclear reactor related experience, including a breakdown of the experience by reactor types, including U.S. Navy nuclear power plants, BWR's, and PWR's by vendors.

Request IC.

Response

(continued) 3. Any other information you believe may be pertinent, including any NRC licenses held or formerly held.

Response

A plant staff organizational chart is attached as Figure 2. Items 1, 2, and 3 are addressed in the following discussion of plant staff positions. Also included in the discussion is a brief job description of the function of the designated plant staff positions.

## Plant Staff Positions

- 1) Manager-Fort Calhoun Station  
(Richard L. Andrews)

A. Educational Background

High School Graduate

B.S. in Aerospace Engineering - Iowa State University, 1967

B. Experience

1. Nuclear-Directly Related

1971 - Test Engineer - Fort Calhoun Station Unit 1

Assisted in the preparation and review of Pre-operational Test Procedures.

Conducted Pre-operational Test Procedures as directed by the OPPD Test Coordinator

Participated in the Fort Calhoun Station Unit 1 License Training Program

1972 - Senior Engineer (Operations Department) Fort Calhoun Station Unit 1

Assisted the Operations Supervisor by directing and coordinating the training of operators.

Participated in the Fort Calhoun Station Unit 1 License Training Program

1973 - Operations Supervisor - Fort Calhoun Station Unit 1

Charged with the responsibility of directing the operating staff (including licensed Shift Supervisors and operators) to ensure the safe and efficient operation of Fort Calhoun Station Unit 1.

Acts as Plant Supervisor in his absence.

1978

to

Present - Manager-Fort Calhoun Station Unit 1.

Directs the Fort Calhoun Station staff to ensure safe and efficient operation of Fort Calhoun Station Unit 1. Previously held NRC SRO license. Duty Supervisor.

2. Nuclear-Other

1967 - Attended U. S. Navy Nuclear Power School in Mare Island, California (6 months) and U. S. Navy Nuclear Power Training Unit in Schenectady, New York (6 months).



Plant Staff Positions

1) B. 2. Nuclear - Other (continued)

1968 - Officer U. S. Navy

As Engineering Officer of the Watch on the nuclear power cruiser Long Beach, directed specific operations of the nuclear propulsion plant.

Directed personnel performing reactor plant maintenance and operational testing during refueling of two ClW nuclear reactors.

Supervised the requalification training of reactor electricians, mechanics and electronic technicians.

Directed personnel in the operation and maintenance of reactor control, instrument and mechanical systems.

Qualified as Engineering Officer of the Watch on the ClW class Naval Nuclear Propulsion plant.

3. Other than Nuclear

None

2) Supervisor - Technical  
(Lawrence T. Kusek)

A. Educational Background

High School Graduate

Regis College - Denver, Colorado, 1967, 1968

B.S. Marine Engineering - U. S. Merchant Marine Academy  
Kings Point, New York, 1972

General Electric Nuclear Power School - Schenectady, New  
York, 1973

B. Experience

1. Nuclear-Directly Related

1973 - Test Engineer

Conducted the Pre-operational Checkout of the refueling equipment prior to initial core loading. Assisted in the conduct of initial plant startup activities.

1977 - Plant Engineer

Coordinated the activities of the Plant Engineering Group under the direction of the Technical Supervisor.

Plant Staff Positions

2) B. 1. Nuclear-Directly Related (continued)

1978

to

Present - Supervisor-Technical

Coordinate the activities of the Chemistry/Radiation Protection Group, the Plant Engineering Group, and the Reactor Engineer under the direction of the Plant Manager. NRC SRO License. Duty Supervisor.

2. Nuclear-Other

1972 - Attended General Electric's Nuclear Power School at Knolls Atomic Power Laboratory in preparation for assignment to one of General Electric's Naval Reactor Prototypes as instructor and Operations Engineer: four months of classroom training and three months of in-plant training.

1969 - Eleven months of sea duty in the U. S. Merchant Marine as a Junior Engineer (Midshipman, USNR). Gained much practical - hands on - experience in marine power plant operation and maintenance.

3. Other Than Nuclear

USCG 3rd Assistant Engineering License

3) Supervisor-Maintenance  
(Donald W. Jones)

A. Educational Background

High School Graduate

Bachelor of Science Degree in Education (1952) from Central Mo. State College with a major in Industrial Arts and a minor in Mathematics.

B.S. in Mechanical Engineering (1960) from U. S. Naval Post-graduate School, Monterey, California

B. Experience

1. Nuclear-Directly Related

Assigned as Maintenance Supervisor of a PWR Nuclear Plant for the past 2 years. Responsible for all routine maintenance performed on the plant and all overhaul activities conducted during the past two refueling outages. Would be called upon to supervise immediate repairs to inoperable equipment resulting from a T.M.I. type incident.

## Plant Staff Positions

### 3) B. 2. Nuclear-Other

Assigned to the Project Division at OPPD while a second nuclear plant was being designed. Attended a PWR Information Course and reviewed the plans primarily for schedule and budget consideration.

### 3. Other Than Nuclear

Served 15 months as Chief Engineer of an Aircraft Carrier responsible for both operation and maintenance of a fossil powered power plant.

Served 2 years as Chief Engineer of a U. S. Navy Frigate. Responsible for the operation and maintenance of a 1200 psi, 1000° superheat power plant.

Served 4-1/2 years as Assistant Manager of a ship repair activity employing approximately 1600 men in intermediate repairs of U. S. Navy Ships in San Diego, California.

### 4) Supervisor-Administrative Services (James J. Fisicaro)

#### A. Educational Background

High School Graduate

Attended the University of Nebraska at Omaha for 3 years as a Business Administration/Engineering Major.

#### B. Experience

##### 1. Nuclear-Directly Related

1979  
to

Present - Responsible for planning, directing and implementing all Security and Administrative programs for the Fort Calhoun Station.

Supervise the security guard force tasked with the responsibility of protection of the Fort Calhoun Station from theft of special nuclear material and industrial sabotage.

Formulate and direct the Quality Assurance records program.

Serve as a communications liason for different communications media between telephone companies and OPPD Communications Department

Serve as Alternate to the Manager-Fort Calhoun Station in matters relating to Security

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Plant Staff Positions

4) B. 2. Nuclear-Other

None

3. Other than Nuclear

Served as an Administrative Assistant at the North Omaha Power Station

5) Supervisor-Operations  
(W. Gary Gates)

A. Educational Background

High School Graduate

B.S. Engineering Science - Iowa State University, 1972  
Presently working on M.S. in Mechanical Engineering at  
University of Nebraska - Lincoln.

D. Experience

1. Nuclear-Directly Related

1972 - Omaha Public Power District, two years and five months in the nuclear power field including (1) Fuel Management, (2) Computer Coding, and (3) Assistant Reactor Engineer at Fort Calhoun Station 1.

1975 - Reactor Engineer - Refueling operations responsibilities, physics tech. spec. responsibility, nuclear material accountability - Duty Supervisor.

1978  
to

Present - Supervisor-Operations, supervising shift operations fire control duties, lecture on subjects related to operations in training classes, Duty Supervisor.  
NRC SRO License.

2. Nuclear-Other

None.

3. Other Than Nuclear

None

Plant Staff Positions

- 6) Supervisor-Instrument and Control and Electrical Field Maintenance (Gary R. Peterson)

A. Educational Background

High School Graduate

BSEE University of Nebraska-Lincoln, 1971

Twelve hours of graduate work toward M.S. Degree in Electrical Engineering, University of Nebraska-Lincoln.

B. Experience

1. Nuclear-Directly Related

1971 - Omaha Public Power District, writing startup procedures for Fort Calhoun Station Unit 1.

1971 - Technical writing of Final Safety Analysis Report and Design Change Request Evaluation for Fort Calhoun Station Unit 1.

1972 - Startup Test Engineer at Fort Calhoun Station Unit 1

1974 - Engineer in Instrument and Control group assisting in maintenance of electronic and pneumatic control equipment and as Instrument and Control Engineer in charge of seven technicians who perform maintenance of electronic and pneumatic control equipment.

1976 - Plant Engineer, in charge of training and plant engineering groups at Fort Calhoun Unit No. 1. Responsibilities included training of all NRC licensed and maintenance personnel and the planning and scheduling of all plant testing activities.

1977  
to

Present - Supervisor-I&C and Electrical Field Maintenance, Responsible for the maintenance and repair of all electrical and electronic control equipment at Fort Calhoun Station. In direct charge of two engineers and 16 technicians and electricians. NRC SRC License. Duty Supervisor.

2. Nuclear-Other

None

3. Other Than Nuclear

None

Plant Staff Positions

7) Reactor Engineer  
(Lawrence J. Dugger)

A. Educational Background

High School Graduate

BSEE, University of Nebraska-Lincoln, 1974

B. Experience

1. Nuclear-Directly Related

1974 - Test Engineer. Duties included: modifications to the refueling machine, Spent Fuel Handling Machine and Transfer Machine; revision of the surveillance tests for these machines; assist in the preparation of the maintenance and special procedures associated with annual plant refueling.

1978 Training Coordinator. Responsible for administration and implementation of training program to maintain plant staff qualifications in accordance with ANSI N-18.17 and licensed reactor operators per 10 CFR 55. Areas included plant operation, safety, radiation protection and security.

1978  
to

Present - Reactor Engineer. Responsible for operation of the reactor within NRC and fuel performance guidelines as well as nuclear material accountability. Reactor engineer furnishes technical input to required reports and assist in training licensed reactor operators. NRC SRO License. Duty Supervisor.

2. Nuclear-Other

None

3. Other Than Nuclear

1968 - U. S. Army Missile Mechanic - involves electrical and hydraulic systems - section supervisor.

1971 - Test Technician at Brunswick Corporation, Lincoln, Nebraska. Operation of a 20K psi hydraulic test system.

## Plant Staff Positions

- 8) Plant Engineer  
(Martin J. McFadden, Jr.)

### A. Educational Background

High School Graduate

BS in Mathematics - University of California, Davis, CA, 1969

MA in Mathematics - University of Montana, Missoula, MT, 1970

### B. Experience

#### 1. Nuclear-Directly Related

1975 - Training Coordinator, Fort Calhoun Station Unit 1, Omaha Public Power District. Directed and coordinated the training activities of the Fort Calhoun Station to maintain the proficiency of plant staff. Implemented the Licensed Operator Requalification program and the Training Program for Licensing Senior/Reactor Operator Candidates. Maintained all training records for Fort Calhoun Station Training.

1978  
to

Present - Plant Engineer, Fort Calhoun Station Unit 1, Omaha Public Power District. Supervises five engineers and training coordinator. Directs plant modification program and surveillance test program. Provides technical support to operations and maintenance staff. Member of Plant Review Committee. Holds Nuclear Regulatory Commission Senior License SOP-2985. Duty Supervisor.

#### 2. Nuclear-Other

1971 - Instructor, U. S. Naval Nuclear Power School, Bainbridge, MD. Instructed enlisted nuclear power program candidates in the fundamentals of mathematics and science necessary for the safe and competent operation of nuclear propulsion plants. Participated in curriculum development.

1973 - Division Director, U. S. Naval Nuclear Power School, Bainbridge, MD. Supervised and coordinated the activities of a staff of six instructors. Responsible for curriculum update and development, test preparation and evaluation. Instructed enlisted students in the fundamentals of mathematics and science necessary for the safe and competent operation of nuclear propulsion plants. Implemented a planned command transfer to Orlando, Florida. Trained new instructors in nuclear science and teaching techniques.

#### 3. Other Than Nuclear

None

Plant Staff Positions

- 9) Supervisor-Chemistry and Radiation Protection  
(Fred F. Franco)

A. Educational Background

High School Graduate

B.S. in Chemistry - Creighton University, 1949

M.S. in Chemistry - Creighton University, 1951

U. S. Public Health Training, 9 weeks.

B. Experience

1. Nuclear-Directly Related

1968

to

Present - Chemistry and Radiation Protection Supervisor,  
Fort Calhoun Station Unit 1

Assist in training station personnel.

Plan, initiate and conduct Pre- and Post-Operational Environmental Radiation Surveillance Program.

Initiate and direct Chemistry & Radiochemistry Program.

Initiate and direct Radiation Protection Program.

Plan and direct Nuclear Emergency responses.

Manage waste disposal program.

2. Nuclear-Other

None

3. Other Than Nuclear

1951

to

1968 - Fossil Fuel Power Plants

Chemical laboratory work associated with analysis of fuels, lubricants, metals and water.

Water treatment plant operation.

Conduct corrosion, insulation and other special studies.

Training other personnel in Chemistry, First Aid and Mathematics.



Plant Staff Positions

- 10) Supervisor-Field Maintenance  
(Richard E. Weare)

A. Educational Background

High School Graduate

4 year apprenticeship C&NW Railroad

4 year Home Study Course Railway Education Bureau

4 month Machinist Mate School, U. S. Navy

30 hour course Radiation Protection for Civil Defense,  
University of Nebraska

30 hour course Basic Electronics Class & Shop

30 hour course Air Conditioning & Refrigeration Class & Shop

Electro Motive Diesel Engine Repair Course

B. Experience

1. Nuclear-Directly Related

5 years - Machine repair and working foreman, Machine Shop group. Maintenance of all mechanical equipment. Reactor heat removal and replacement and diesel generator repair.

2 years - Supervisor-Field Maintenance. Supervisor of 3 maintenance crafts, responsible for repair and maintenance of all mechanical equipment

2. Nuclear-Other

None

3. Other Than Nuclear

Chicago Northwestern Railroad, 4 years Steam locomotive repair and machine shop work

Chicago Northwestern Railroad, 11 years Diesel Engine overhaul and repair

Allied Chemical Corp., 2-1/2 years shop machinist, repair and fabrication of mechanical parts.

OPPD, 12 years machine repair and maintenance fossil plant.

Plant Staff Positions

- 11) Shift Supervisor  
(Robert F. Johnston)

A. Educational Background

High School Graduate

9/69 - ROTP (W) Waltz Mill: Basic Nuclear Engineering Fuel  
Handling

Pool Type Reactor Operation

Saxton, PA: Plant Indoctrination

Plant Operation and Startups

A.E.C. Equivalency Examination

11 months

1/71 - Operating Preparation and review of OI, OP and  
Manual Emergency Procedures

1000 - 4000 hours

9/71 - PWR Utilization of a simulator to gain experience  
Simulator and training in the normal operation of large  
PWR's.

2 - 4 weeks

10/71 - System Study of Fort Calhoun Systems followed by  
Checkouts individual examination on each system to  
ensure adequate knowledge

6 months

11/71 - Health Fundamentals of Health Physics and Radiation  
Physics/ Protection

Rad. Prot.

2 weeks

B. Experience

1. Nuclear-Directly Related

Shift Supervisor-Fort Calhoun Station Unit 1, Omaha Public  
Power District; Has held three (3) SRO Licenses

1971

to

1973 - Systems Startup; Hot Functional; Initial Core Loading;  
Initial low power physics testing; power ascension;  
5 refueling cycles; a total of 5 years operation.

1973

to

Present - Supervise the safe, efficient and continuous operation  
of the Fort Calhoun Station during assigned shifts in  
accordance with established procedures and authorizing  
licenses.

2. Nuclear-Other

None

Plant Staff Positions

11) B. 3. Other Than Nuclear

18 years experience working in fossil power plant.

12) Shift Supervisor  
(John C. Riley)

A. Educational Background

High School Graduate

1949 Hays Course Power Plant Operation  
Combustion Engineer

8 years

1/70 ROTP ("") Waltz Mill: Basic Nuclear Engineer  
Fuel Handling  
Pool Type Reactor Operator  
Saxton, PA: Plant Indoctrination  
Plant Operation and Startups  
A.S.C. Equivalency Examination

11 months

10/70 - Veterans Hospital  
Lecture, Operation, Experiments  
2 weeks

1/71 - Operating Manual  
Preparation and review of OI, OP and  
Emergency Procedures  
4000 hours

9/71 - PWR Simulator  
Utilization of a simulator to gain experience  
and training in the normal operation of large  
PWR's

2-4 weeks

10/71 - System Checkouts  
Study of Fort Calhoun Systems followed by  
individual examinations on each system to  
ensure adequate knowledge

6 months

11/71 - Health Physics/  
Fundamentals of Health Physics and Radiation  
Rad. Prot. Protection

2 weeks

B. Experience

1. Nuclear-Directly Related

Shift Supervisor-Fort Calhoun Station Unit 1, Omaha Public  
Power District; Has held three (3) SRO Licenses

Plant Staff Positions

12) B. 1. Nuclear-Directly Related (continued)

1971

to

1973 - Systems Startup; Hot Functional; Initial Core Loading;  
Initial Low Power Physics Testing; Power Ascension;  
5 Refueling Cycles; a total of 5 years operation

1973

to

Present - Supervise the safe, efficient and continuous operation  
of the Fort Calhoun Station during assigned shifts in  
accordance with established procedures and authorizing  
licenses.

2. Nuclear-Other

None

3. Other Than Nuclear

17 years experience working in fossil power plant.

13) Shift Supervisor  
(Robert C. DeMeulmeester)

A. Educational Background

High School Graduate

6/58	U. S. Navy Basic Elec- trical School 14 weeks	AC/DC Theory, AC/DC Machines, AC/DC ckts, Basic Electronics
2/62	Advanced Electrical School 6 months	AC/DC Theory, Machines & Ckts., Gyros, Transistors, Elect. Propulsion, Voltage Rec. and Degassing
3/62	Prototype Training 6 months	System Training on G. E. D1G Prototype
9/62	U.S. Navy Nuclear PWR School 6 months	Physics, Math, Thermodynamics, Reactor Theory and Principles advanced AC/DC Theory, Basic Electronics
5/64	Prototype Design Lecture 1 month	Detailed design lectures on G.E. D1G Prototype's Systems and Equipment

## Plant Staff Positions

### 13) A. Educational Background (continued)

9/65	Prototype Instructor/ Operator 2-1/2 years	Qualification as Electrical Plant Operator/ Instructor and Reactor Plant Shutdown Operator
11/65	D2G Qual.  2 months	Trng. and Qualification on the U.S.S. Bainbridge Dual Power Plant as Elect. Operator
11/66	Electrician 8 years	Ship Board Electrical Repair
10/68	Nuclear Defense 2 weeks	Results, Makeup and Proper Procedures to follow in event of nuclear attack
3/69	ROTP (W)  24 weeks	Waltz Mill: Basic Nuclear Engineering Fuel Handling Pool Type Reactor Operation Saxton, PA: Plant Indoctrination Plant Operation and Startups A.E.C. Equivalency Examination
1/70	G.G.A. Nuc. Instrumenta- tion 1 week	Theory of Operation, Calibration and Align- ment of Wide Range Log and Linear Power Range Neutron Monitoring System
1/71	Operating Manual 9 weeks	Preparation and Review of OI, OP and Emer- gency Procedures
9/71	PWR Simulator  2-4 weeks	Utilization of a simulator to gain experience and training in the normal operation of large PWR's
10/71	System Checkouts  6 months/1 year	Study of Fort Calhoun Systems followed by in- dividual examinations on each system to ensure adequate knowledge
11/71	Health Physics/ Rad. Prot. 2 weeks	Fundamentals of Health Physics and Radiation Protection

### B. Experience

#### 1. Nuclear-Directly Related

Shift Supervisor-Fort Calhoun Station Unit 1, Omaha Public  
Power District; Has held three (3) SKO licenses

Plant Staff Positions

13) B. 1. Nuclear-Directly Related (continued)

1971

to

1973 - Systems Startup; Hot Functional; Initial Core Loading;  
Initial Low Power Physics Testing; Power Ascension;  
5 Refueling Cycles; a total of 5 years operation

1973

to

Present - Supervise the safe, efficient and continuous operation  
of the Fort Calhoun Station during assigned shifts in  
accordance with established procedures and authorizing  
licenses

2. Nuclear-Other

Served 9 years in the United States Nuclear Navy Program

3. Other Than Nuclear

None

14) Shift Supervisor  
(George J. Pelnar)

A. Educational Background

High School Graduate

1953	Steam Engineering 1 year	Basic Math, Chemistry, Physics, Boiler and Turbine Operation
3/69	ROTP (W)	Waltz Mill: Basic Nuclear Engineering Fuel Handling Pool Type Reactor Operation Saxton, PA: Plant Indoctrination Plant Operation and Startups A.E.C. Equivalency Examination
1/71	Operating Manual 1000 - 4000 hours	Preparation and review of OI, OP and Emer- gency Procedures
9/71	PWR Simulator  2-4 weeks	Utilization of a simulator to gain experience and training in the normal operation of large PWR's
10/71	Systems Checkouts  6 months/	Study of Fort Calhoun Systems followed by individual examination on each system to en- sure adequate knowledge.
11/71	Health Physics/ Rad. Prot.	Fundamentals of Health Physics and Radiation Protection

Plant Staff Positions

14) B. Experience

1. Nuclear-Directly Related

Shift Supervisor-Fort Calhoun Station Unit 1, Omaha Public Power District; Has held three (3) SRO licenses

1/71

to

1973 - Systems Startup; Hot Functional; initial Core Loading; Initial Low Power Physics Testing; Power Ascension; 5 Refueling Cycles; a total of 5 years operation

1973

to

Present - Supervise the safe, efficient and continuous operation of the Fort Calhoun Station during assigned shifts in accordance with established procedures and authorizing licenses.

2. Nuclear-Other

None

3. Other Than Nuclear

12 years experience working in fossil power plant.

15) Shift Supervisor  
(Charles F. Vanecek)

A. Educational Background

High School Graduate

11/61 Elect. Appr.  
Union Pacific  
Railroad  
50 months

Railroad Correspondence Course

3/69 ROTP (W)

Waltz Mill: Basic Nuclear Engineering  
Fuel Handling  
Pool Type Reactor Operation  
Saxton, PA: Plant Indoctrination  
Plant Operation and Startups  
A.E.C. Equivalency Examination

24 weeks

1/71 Operating  
Manual  
1000 - 4000 hours

Preparation and review of OI, OP and Emergency Procedures

9/71 PWR  
Simulator

Utilization of a simulator to gain experience and training in the normal operation of large PWR's.

2-4 weeks

Plant Staff Positions

15) A. Educational Background (continued)

10/71	System Checkouts	Study of Fort Calhoun Systems followed by individual examinations on each system to ensure adequate knowledge
	6 months/1 year	
11/71	Health Physics/ Rad. Port.	Fundamentals of Health Physics and Radiation Protection
	2 weeks	

B. Experience

1. Nuclear-Directly Related

Shift Supervisor-Fort Calhoun Station Unit 1, Omaha Public Power District; Has held three (3) SRO licenses

1971  
to

1973 - Systems Startup; Hot Functional; Initial Core Loading; Initial Low Power Physics Testing; Power Ascension; 5 Refueling Cycles; a total of 5 years operation

1973  
to

Present - Supervise the safe, efficient and continuous operation of the Fort Calhoun Station during assigned shifts in accordance with established procedures and authorizing licenses.

2. Nuclear-Other

None

3. Other Than Nuclear

8 years experience working in fossil power plant.

16) Shift Supervisor  
(Milton L. Meador)

A. Educational Background

High School Graduate

3/69	ROTP (W)	Waltz Mill: Basic Nuclear Engineering Fuel Handling Pool Type Reactor Operation
		Saxton, PA: Plant Indoctrination Plant Operation and Startups A.E.C. Equivalency Examination
24 weeks		



Plant Staff Positions

16) A. Educational Background (continued)

1/71	Operating Manual 1000 - 4000 hours	Preparation and review of OI, OP and Emergency Procedures
9/71	PWR Simulator 2-4 weeks	Utilization of a simulator to gain experience and training in the normal operation of large PWR's
10/71	System Checkouts 6 months/1 year	Study of Fort Calhouns systems followed by individual examinations on each system to ensure adequate knowledge
11/71	Health Physics/ Rad. Prot. 2 weeks	Fundamentals of Health Physics and Radiation Protection

B. Experience

1. Nuclear-Directly Related

Shift Supervisor-Fort Calhoun Station Unit 1, Omaha Public Power District; Has held three (3) SRO licenses.

1971  
to

1973 - Systems Startup; Hot Functional; Initial Core Loading; Initial Low Power Physics Testing; Power Ascension; 5 Refueling Cycles; a total of 5 years operation

1973  
to

Present - Supervise the safe, efficient and continuous operation of the Fort Calhoun Station during assigned shifts in accordance with established procedures and authorizing licenses.

2. Nuclear-Other

None

3. Other Than Nuclear

12 years experience working in fossil power plant

## Plant Staff Positions

17) Plant Health Physicist  
(Maxey F. Cassada)

### A. Educational Background

High School Graduate

Completed the following schools in the U. S. Navy:

Submarine Engineering School - 1950

Diesel Engine Operation, Maintenance and Repair School - 1951

Submarine Engineering Hydraulic Systems Operations, Design and Repair - 1952

Air Conditioning and Refrigeration School - 1954

Career Counselor Training School - 1957

Navy Nuclear Power School - 1960

Nuclear Reactor Prototype Training - 1961

Engineering Laboratory Technician School - 1962

Specialized Training Covering Health Physics Problems and Principles, Code of Federal Regulations, Statistical Variations, Shielding, Radiochemistry and Internal Exposure Considerations - 1962-1964

Leadership and Instructor School - 1964

Nuclear Weapons Radiation Safety Officers School - 1968

Completed the following correspondence courses with a grade of Excellent or Outstanding:

Advanced Mathematics

Nuclear Physics

Radiological Defense Considerations

Leadership

Basic Psychology

Engineering Plant Specialist

Basic Electricity

Completed the following specialized health physics courses:

Health Physics Course (80 classroom hours) presented by Rockwell International - 1976

Respiratory Protection Course, presented by Los Alamos Scientific Laboratory - 1978

Radiological Health Physics Course, presented by the University of Lowell Graduate School - 1979

Currently attending University of Nebraska at Omaha night classes  
1976 - 1979 (Senior standing)

Plant Staff Positions

17) B. Experience

1. Nuclear-Directly Related

1972

to

1979 - Plant Health Physicist at the Fort Calhoun Station  
Unit 1, Omaha Public Power District

Experience and responsibilities include:

Training emergency monitoring teams and duty officers.

Preparing emergency drill scenarios

Calibration of process and stack effluent monitors  
and calculations of radioactivity concentrations and  
offsite dose assessments based on their readings.

Meeting with local fire and rescue squads and public  
officials for training and discussions relating to  
nuclear emergencies.

2. Nuclear-Other

1962

to

1965 - Supervisor of Radiological Controls and Radiochemistry  
and qualified Engineering Watch Supervisor on a Nuclear  
submarine. This period excluded 2 years of normal  
operations and 1 year of maintenance and refueling.

1965

to

1972 - Approved by Naval Reactors and certified by COMSUBLANT  
as a qualified Radiological Controls Officer during  
this entire period. Radiological Controls Officer at  
the New London Submarine Base and two nuclear repair  
ships, all with nuclear weapons storage capacity.  
Experience and responsibilities included:

Training emergency duty officers and monitoring teams  
to effectively cope with postulated emergency situations  
such as:

Accidental release of highly radioactive resin to  
the environment;

Accidental releases of radioactive liquids and gases  
to the environment;

Loss of radioactive material;

Fires in radiation areas;

Nuclear weapons drop and evacuation of large numbers  
of personnel.

Establishing and then conducting environmental monitoring  
programs. This included the collection of harbor bottom  
sediment and river water samples and determination of  
radioactive content, direct harbor bottom radiation  
monitoring, shoreline radiation surveys, atmosphere

## Plant Staff Positions

### 17) B. 2. Nuclear-Other (continued)

sampling, and film badge posting and processing.

Directing the nuclear emergency teams through several large scale emergency drills by performing as "on site commander".

Writing and maintaining emergency plans current.

### 3. Other Than Nuclear

Ensuring the correct handling, packaging, shipping and receiving of radioactive material in accordance with local and DOT regulations.

Determining the necessity for, and if so, the type of contamination containment devices and shielding necessary for nuclear repairs.

Reviewing work procedures and instructing workers and monitors in pursuit of ALARA goals.

Controlling the accountability, custody and stowage of all radioactive material.

### 18) Plant Chemist (J. Blair Nicholas)

#### A. Educational Background

High School Graduate

B. S. Chemistry, Buena Vista College (Storm Lake, IA) - 1964

M.S. Radiochemistry, University of Nebraska (Lincoln) - 1967

Ph.D Radiochemistry, University of Nebraska (Lincoln) - 1971

Post-doctoral Research Associate in Radiochemistry - Virginia Polytechnic Institute and State University (Blacksburg, VA) - 1972

#### B. Experience

##### 1. Nuclear-Directly Related

1974

to

Present - Omaha Public Power District

Plant radiochemist at the Fort Calhoun Nuclear Station Unit 1;

Overlay operator during simulated Emergency Accident conditions;

Trained in Emergency Duty Officer procedures;

Trained in collection and analysis of environmental and plant samples for radioactive isotopes during emergency simulations.

Plant Staff Positions

18) B. 2. Nuclear-Other

1972

to

1974 - Nebraska State Department of Health;

Radiation safety inspections in use and operations of all sources of radiation;

Responsible for establishing and maintaining a program to monitor radioactive contamination in the State's environment.

3. Other Than Nuclear

1964 - University of Nebraska (Lincoln) Graduate research and teaching assistant: (1) teaching radiochemical technology and handling of radioactive materials in the laboratory; (2) experience in radiochemistry.

1969 - University of Nebraska (Lincoln) Research Associate: (1) maintaining a radio-analytical laboratory; (2) conducting basic research in hot-atom chemistry; (3) helping direct graduate radiochemical research.

1971 - Virginia Polytechnic Institute and State University: (1) independent research in hot-atom and positronium chemistry.

Completed HEW course on Medical Radiological Surveillance.

19) Test Engineer  
(Donald E. Hendry)

A. Educational Background

High School Graduate

BSME from University of Nebraska at Lincoln, May 1977

Nebraska E.I.T.

B. Experience

1. Nuclear-Directly Related

2 years as a Test Engineer at Omaha Public Power District's Fort Calhoun Station Unit 1, Alternate Plant Engineer  
September 1977 to Present

Past Experiences:

Planned and coordinated containment spray nozzle testing - 1977 Refueling Outage.

Maintenance and procedure writing support work - 1977 Refueling Outage.

Planned and coordinated in conjunction with Combustion Engineering Staff the first surveillance capsule cut-up

Plant Staff Positions

19) B. 1. Nuclear-Directly Related (continued)

and removal from the Fort Calhoun Station - 1978.  
Wrote and coordinated a program of fire protection tests - 1978.  
Monitor in-service surveillance test data - 1978.  
Attended I.R.D. Mechanalysis Vibration School. Became involved with vibration testing with pumps and motors - 1978.  
During 1978 Refueling Outage coordinated and performed pre-operational testing of plant refueling machine equipment.  
1978, attended a 1 week course at Combustion Engineering's Pressurized Water Reactor Simulator, Windsor, CT.

2. Nuclear-Other

None

3. Other Than Nuclear

None

20) Test Engineer  
(David L. Rollins)

A. Educational Background

High School Graduate

BSME from the University of Kansas, May 1974

Completed course requirements and currently writing thesis for a MSME at the University of Kansas

State of Kansas - E.I.T., Certificate #EIT-5214

B. Experience

1. Nuclear-Directly Related

1 year as a Test Engineer at Omaha Public Power District's Fort Calhoun Nuclear Station

Past experiences include:

Planned and coordinated the installation of the charging pump suction and discharge accumulators.

Provided engineering support for mechanical maintenance during the 1978 Refueling Outage.

Member of the Fire Protection subcommittee; planning and coordinating many of the Fire Protection modifications required by the NRC Fire Protection Safety Evaluation Report.

Attended a 1 week course at Combustion Engineering's PWR Simulator at Windsor, CT in May, 1979.

Plant Staff Positions

20) B. 2. Nuclear-Other

None

3. Other Than Nuclear

Employed 10 years with Hallmark Cards, Inc. at Lawrence, KS as a press operator; gained experience in mechanical maintenance 1966 - 1978

2 years (1968 - 1969) in the U. S. Army Infantry, Air Defense Section. Honorable Discharge.

21) Test Engineer  
(John J. Tesarek)

A. Educational Background

High School Graduate

BSEE University of Nebraska-Lincoln - 1977

B. Experience

1. Nuclear-Directly Related

9 months Test Engineer at Fort Calhoun Station Unit 1

2. Nuclear-Other

None

3. Other Than Nuclear

9 months Test Engineer at North Omaha Power Station.  
Employed as a draftsman in the Communications Dept. of the Union Pacific Railroad from June 1977 to August 1977.  
Employed in the Transformer Maintenance Dept. of OPPD from June 1976 to August 1976.

22) Test Engineer  
(Michael J. McEwan)

A. Educational Background

High School Graduate

Bachelor of Science, Nuclear Engineering, Kansas State University  
1978

B. Experience

1. Nuclear-Directly Related

Test Engineer, Plant Engineering Group, Fort Calhoun Nuclear Generating Station 1978.

## Plant Staff Positions

### 22) B. 1. Nuclear-Directly Related (continued)

Responsible for developing and conducting maintenance procedures, surveillance tests and special procedures. Presently assigned as Refueling Outage Coordinator. Responsible for entire scheduling and planning functions for refueling outage.

Training and studying for a Senior Operator's License.

### 2. Nuclear-Other

Nuclear Reactor Operator, University of Maryland, College Park, Maryland 1964 - 1967.

Licensed by the USAEC to operate 10C 1CW Pool reactor No. R-70; Docket No. 55-2467, License No. OP-2158. Performed start-up, operation, shutdown cycles, surveillance tests and maintenance. Supervised the performance of experiments, laboratory classes and thesis research.

Nuclear Medical Science Officer, United States Army  
1967 - 1971 Assistant Adjutant, 43rd Field Hospital  
Long Binh, Viet Nam (67-68)

Staff Officer, Div. of Nuclear Support, Dept. of the  
Army, Washington, DC (68-71)

Provided nuclear support services of various kinds for different Army agencies including:

Reactor Inspection

Radiological Emergency Response Team

Reactor Operation

Licensed by the USAEC to operate 50 KW solution fuel L-54 nuclear reactor No. R-85, Docket No. 55-2467, License No. OP-2481.

Nuclear Reactor Supervisor, Kansas State University, Manhattan, Kansas 1971 - 1978

Supervised a staff of five NRC licensed operators and two technicians, was directly responsible for all operation, maintenance and surveillance tests. Coordinated the only refueling of this reactor. Licensed by the USNRC to operate and direct the operation of the reactor by other individuals. Docket No. 55-2647, License No. OP-2735 and SOP-1391-3.

### 3. Other Than Nuclear

None



Plant Staff Positions

23) Engineer  
(Joseph L. Connolley)

A. Educational Background

High School Graduate

B.S. Electrical Engineering, University of Nebraska at Lincoln-1974

Certified E.I.T.

B. Experience

1. Nuclear-Directly Related

Five (5) years, electrical and instrumentation and control maintenance at Fort Calhoun Station. All aspects of new installations and maintenance of in-house equipment, including:

Reactor Protective Systems, Reactor Controls, Valve Controls

Large Turb./Gen. Controls, Med. & Low Voltage Switchgear, Diesel/Gen. Controls

2. Nuclear-Other

None

3. Other Than Nuclear

None

24) Engineer  
(Merl R. Core)

A. Educational Background

High School Graduate

BSEE from Iowa State University, Ames, Iowa, May 1978

E.I.T. in April, 1978.

Approximately two years Naval Service Schools including basic electronics, TACAN, RADAR, CRITTO and communications.

B. Experience

1. Nuclear-Directly Related

One year as Test Engineer/I&C Engineer at Fort Calhoun Unit No. 1

Plant Staff Positions

24) B. 2. Nuclear-Other

U. S. Navy. Six years as an Electronics technician in Active Duty. Four years as a technician under the U. S. Naval Reserve program.

3. Other Than Nuclear

None

25) Assistant Training Coordinator  
(John F. Gass)

A. Educational Background

High School Graduate

6/70 ROTP (W) Waltz Mill: Basic Nuclear Engineering  
Fuel Handling  
Pool Type Reactor Operation

11 weeks

10/70 Veterans Hospital  
80 hours  
Lecture, Operation, Experiments

10/71 System Checkouts Study of Fort Calhoun Systems followed by individual examinations on each system to ensure adequate knowledge  
6 months/1 year

1/71 Operating Manual  
1000 - 4000 hours  
Preparation and review of OI, OP and Emergency Procedures

11/71 Health Physics/  
Rad. Prot.  
2 weeks  
Fundamentals of Health Physics and Radiation Protection

B. Experience

1. Nuclear-Directly Related

Acting Training Coordinator at Fort Calhoun Station Unit 1, Omaha Public Power District

Holds a Senior Reactor Operator License

Plant Staff Positions

25) P. 1. Nuclear-Directly Related (continued)

1971

to

1973 - Systems Startup; Hot Functionals; Initial Core Loading  
Initial Low Power Physics Testing; Power Ascension;  
5 Refueling Cycles  
A total of 5 years operation

1973

to

1978 - Operator, Fort Calhoun Station Unit 1

2. Nuclear-Other

None

3. Other Than Nuclear

10 years experience in Operations Dept. in fossil fuel  
power plant. Assisted in startup of two fossil units.

Request IIB.1. Provide an organizational chart showing each offsite functional unit and subunit that now provides, and could provide, engineering-professional-technical support for your plant staff in the areas of:

- a. Nuclear power plant operations.
- b. Nuclear, mechanical, structural, electrical, thermal-hydraulic, metallurgical and materials, instrumentation and controls, and systems engineering.
- c. Plant chemistry and radiochemistry.
- d. Health physics.
- e. Nuclear fuels.
- f. Maintenance engineering.

Briefly describe the functions and responsibilities of each unit and subunit and indicate the number of professional-technical persons within each unit and subunit, including managers and supervisors. Other personnel may be included if you believe their level of expertise will be useful in performing necessary and unique functions for unusual events like the TMI-2 accident.

The organizational chart should indicate whether the present nuclear plant(s) technical support assignment for each unit and subunit is on the basis of full time (F), part-time (P), or not assigned at all (N) but could be made available.

Response Organizational charts showing each offsite functional unit and subunit that provide engineering-professional-technical support for the Fort Calhoun plant staff is shown in Figures 3 and 4, attached. The figures illustrate the number of professional-technical persons within each unit and subunit and show the amount of time (i.e., part time, full time) that these units and subunits are assigned to assist the plant staff.

Request IIB.2. Provide the following summary information for the professional-technical personnel within each unit and subunit identified in 1 above in tabular form:

- a. Educational background.
- b. Applicable work experience in the particular field.
- c. Any other information you believe may be pertinent, including any NRC licenses held or formerly held.

Response Technical Services Section

See Section 1 for Section Manager qualifications.

Test and Performance Technical Services

1. Educational Background

a. <u>B.S. Degree</u>	<u>Number</u>
Chemical Engineering	1
Mechanical Engineering	2
b. <u>M.S. Degree</u>	<u>Number</u>
Electrical Engineering	1
c. <u>Ph.D. Degree</u>	<u>Number</u>
None	N/A

2. Technical Experience

a. Engineering

- (1) Nuclear Power Field - 0 man-years
- (2) Engineering Management - 4 man-years
- (3) Total Utility Experience - 75 man-years

b. Field

	F	N
(1) Reactor Physics - 0 man-years	0	0
(2) Electrical Engineering - 0 man-years	0	0
(3) Health Physics - 0 man-years	0	0
(4) Test and Performance - 4 man-years	0	4
(5) Plant Operations - 11 man-years	0	11
(6) Chemistry - 27 man-years	0	27
(7) Maintenance - 3 man-years	0	3
(8) Mechanical Engineering - 30 man-years	0	30

3. Professional Registration

2 Professional Engineers

4. Operator Licenses - None.

Reactor and Computer Technical Services

1. Educational Background

a. <u>B.S. Degree</u>	<u>Number</u>
Business Administration	1
Electrical Engineering	1
Engineering Science	1
Nuclear Engineering	2
Physics	2
b. <u>M.S. Degree</u>	<u>Number</u>
Computer Science	1
Nuclear Engineering	2
c. <u>Ph.D. Degree</u>	<u>Number</u>
Nuclear Engineering	2

2. Technical Experience

a. Engineering

- (1) Nuclear Power Field - 16 man-years
- (2) Engineering Management - 5 man-years
- (3) Total Utility Experience - 28 man-years

b. Field

	F	N
(1) Reactor Physics - 11 man-years	11	0
(2) Electrical Engineering - 0 man-years	0	0
(3) Health Physics - 2 man-years	2	0
(4) Computer Science - 48 man-years	22	26

3. Professional Registration

1 Professional Engineer

4. Operator Licenses

1 RO  
1 SRO

Chemical and Environmental Technical Services

1. Educational Background

a. <u>B.S. Degree</u>	<u>Number</u>
Biology	6
Chemistry	1
b. <u>M.S. Degree</u>	<u>Number</u>
Biology	2
Chemistry	1
c. <u>Ph.D. Degree</u>	<u>Number</u>
None	N/A

2. Technical Experience

a. Engineering

- (1) Nuclear Power Field - 0 man-years
- (2) Engineering Management - 0 man-years
- (3) Total Utility Experience - 0 man-years

b. Field

	F	N
(1) Reactor Physics - 0 man-years	0	0
(2) Electrical Engineering - 0 man-years	0	0
(3) Health Physics - 0 man-years	0	0
(4) Environmental Sciences - 73 man-years	69	4
(5) Chemistry - 82 man-years	2	80

Request IIB.2.  
Response  
(continued)

3. Professional Registration

None.

4. Operator Licenses

1 RO

Operations Technical Support Services

1. Educational Background

a. <u>B.S. Degree</u>	<u>Number</u>
Chemical Engineering	3
Electrical Engineering	2
Mechanical Engineering	4
Metallurgy & Metallurgical Engineering	2
b. <u>M.S. Degree</u>	<u>Number</u>
Mechanical Engineering	1
Chemical Engineering	1
Nuclear Engineering	1
c. <u>Ph.D. Degree</u>	<u>Number</u>
Metallurgy	1

2. Technical Experience

a. Engineering

- (1) Nuclear Power Field - 32 man-years
- (2) Engineering Management - 7 man-years
- (3) Total Utility Experience - 43 man-years

b. Field

	F	N
(1) Reactor Physics - 0 man-years	0	0
(2) Electrical Engineering - 5 man-years	3	2
(3) Health Physics - 0 man-years	0	0
(4) Mechanical Engineering - 16 man-years	14	2
(5) Metallurgy - 5 man-years	2	3
(6) Plant Engineering - 9 man-years	7	2
(7) Chemical Engineering - 10 man-years	10	0
(8) Nuclear Engineering - 5 man-years	5	0

3. Professional Registration

3 Professional Engineers

4. Operator Licenses

1 SRO

Generating Station Engineering Section

See Section 1 for Section Manager qualifications.

Civil Engineering

1. Educational Background

a.	<u>B.S. Degree</u>	<u>Number</u>
	Civil Engineering	2
b.	<u>M.S. Degree</u>	<u>Number</u>
	Engineering Management	1
c.	<u>Ph.D. Degree</u>	<u>Number</u>
	None	N/A

2. Technical Experience

a. Engineering

- (1) Nuclear Power Field - 5 man-years
- (2) Engineering Management - 16 man-years
- (3) Total Utility Experience - 43 man-years

b. Field

	F	N
(1) Reactor Physics - 0 man-years	0	0
(2) Electrical Engineering - 31 man-years	0	31
(3) Health Physics - 0 man-years	0	0
(4) Civil Engineering - 26 man-years	4	22

3. Profession Registration

1 Professional Engineer

4. Operator Licenses

None.



Electrical Engineering  
(GSE)

1. Educational Background

a. <u>B.S. Degree</u>	<u>Number</u>
Electrical Engineering	4
b. <u>M.S. Degree</u>	<u>Number</u>
Electrical Engineering	1
Nuclear Engineering	1
c. <u>Ph.D. Degree</u>	<u>Number</u>
None	N/A

2. Technical Experience

a. Engineering

- (1) Nuclear Power Field - 17 man-years
- (2) Engineering Management - 6 man-years
- (3) Total Utility Experience - 53 man-years

b. Field

	<u>F</u>	<u>N</u>
(1) Reactor Physics - 0 man-years	0	0
(2) Electrical Engineering - 55 man-years	11	44
(3) Health Physics - 0 man-years	0	0
(4) Mechanical Engineering - 2 man-years	0	2

3. Professional Registration

4 Professional Engineers

4. Operator Licenses

None.

Nuclear Engineering  
(GSE)

1. Educational Background

a. <u>B.S. Degree</u>	<u>Number</u>
Aero. Engineering	1
Nuclear Engineering	2
Physical Science	1
b. <u>M.S. Degree</u>	<u>Number</u>
Nuclear Engineering	1
c. <u>Ph.D. Degree</u>	<u>Number</u>
None	N/A

2. Technical Experience

a. Engineering

- (1) Nuclear Power Field - 26 man-years
- (2) Engineering Management - 7 man-years
- (3) Total Utility Experience - 19 man-years

b. Field

	<u>F</u>	<u>N</u>
(1) Reactor Physics - 0 man-years	0	0
(2) Electrical Engineering - 0 man-years	0	0
(3) Health Physics - 0 man-years	0	0
(4) Nuclear Engineering - 17 man-years	12	5
(5) Mechanical Engineering - 7 man-years	6	1
(6) Civil Engineering - 6 man-years	3	3

3. Professional Registration

None

4. Operator License

1 Certified Naval Reactor Supervisor

\*Mechanical Engineering  
(GSE)

1. Educational Background

a. <u>B.S. Degree</u>	<u>Number</u>
Engineering Technology	2
Mechanical Engineering	3
Physics	1
b. <u>M.S. Degree</u>	<u>Number</u>
Mechanical Engineering	1
c. <u>Ph.D. Degree</u>	<u>Number</u>
None	N/A

\* Includes GSE Administrative Services and Engineering Project Specialist

2. Technical Experience

a. Engineering

- (1) Nuclear Power Field - 41 man-years
- (2) Engineering Management - 23 man-years
- (3) Total Utility Experience - 76 man-years

b. Field

	<u>F</u>	<u>N</u>
(1) Reactor Physics - 0 man-years	0	0
(2) Electrical Engineering - 10 man-years	0	10
(3) Health Physics - 0 man-years	0	0
(4) Mechanical Engineering - 74 man-years	36	38
(5) Engineering Mechanics - 4 man-years	0	4

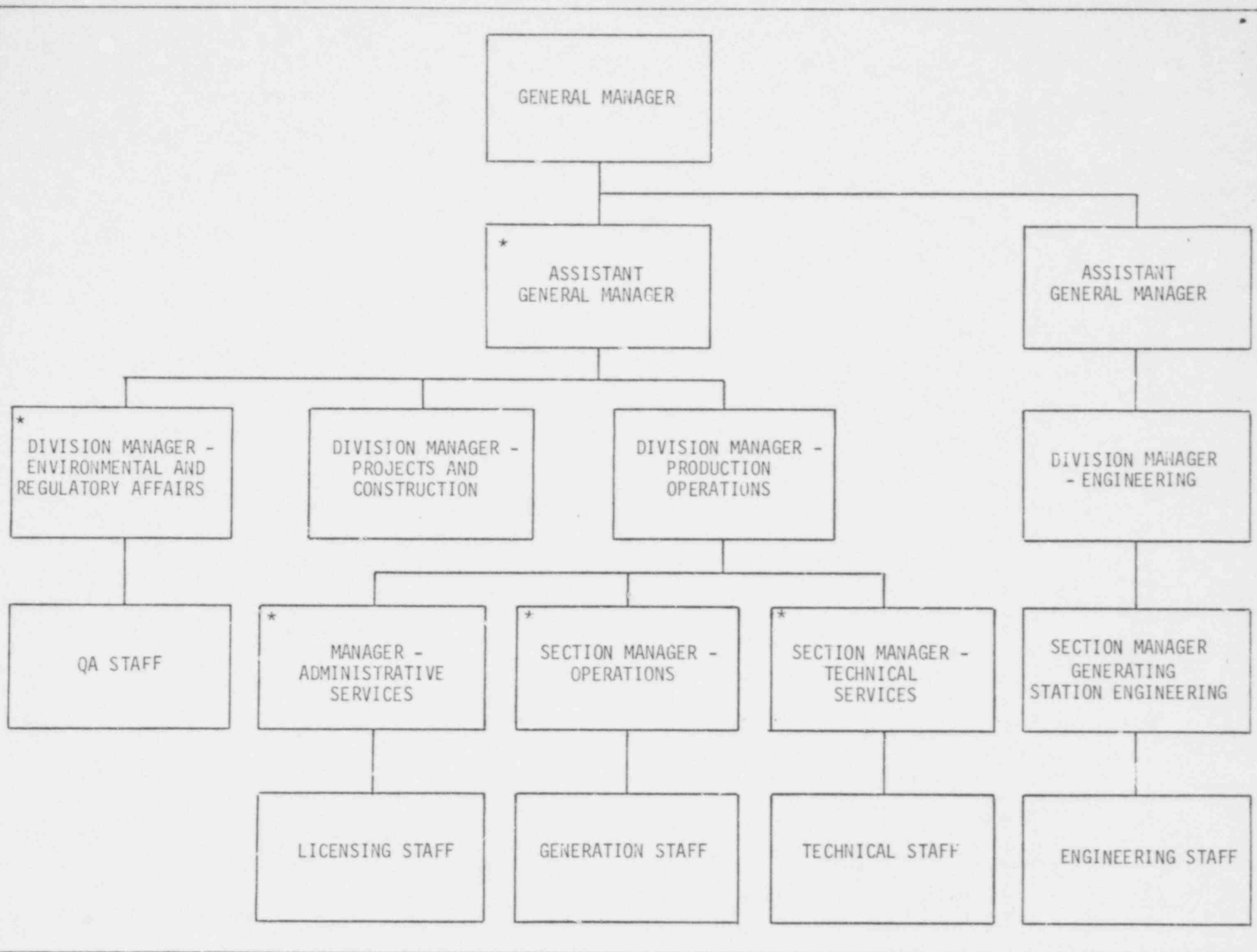
3. Professional Registration

2 Professional Engineers

4. Operator Licenses

None

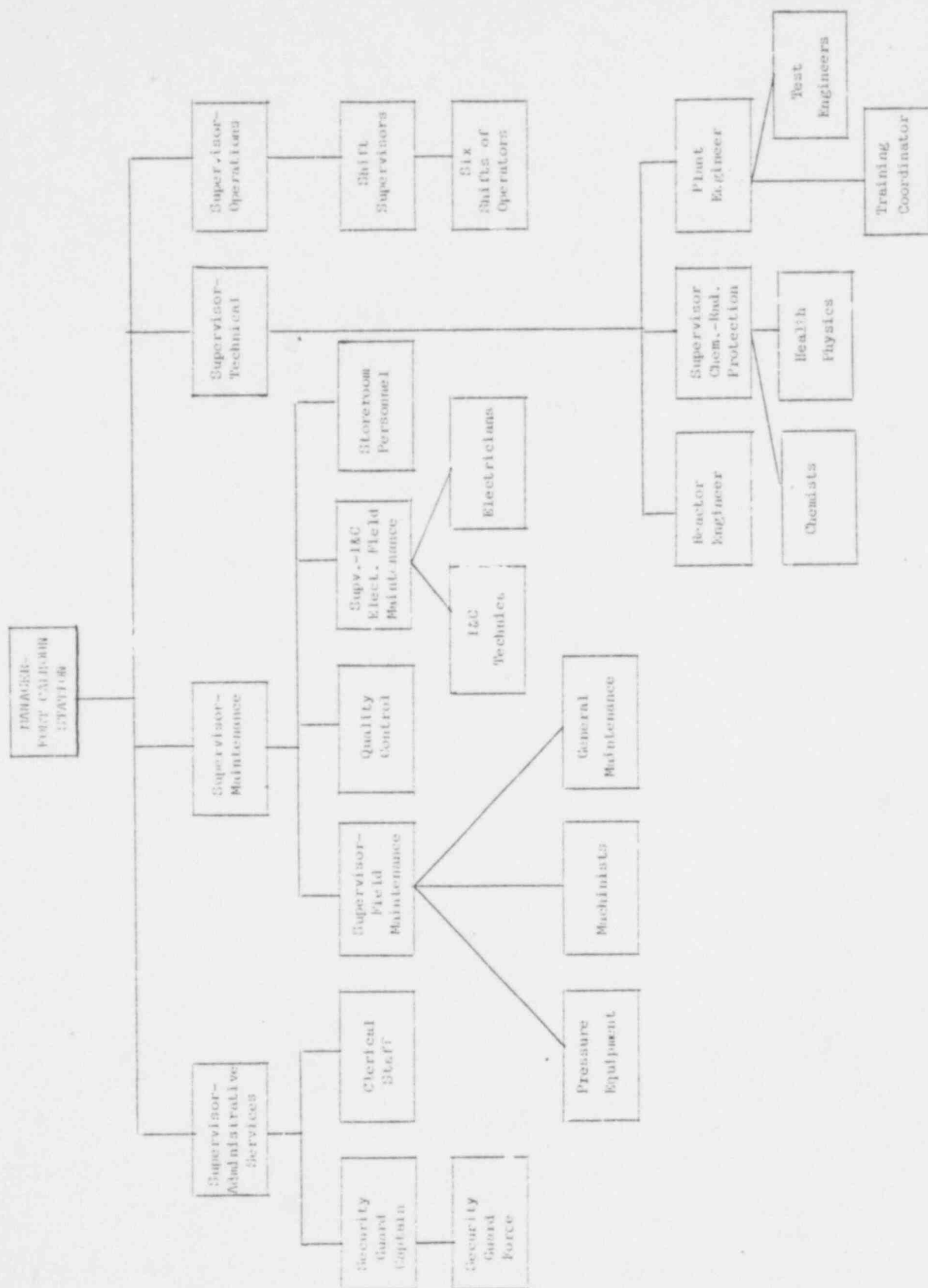
Figure 1.



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Figure 2.



POOR ORIGINAL

Figure 3.

Generating Station Engineering Section

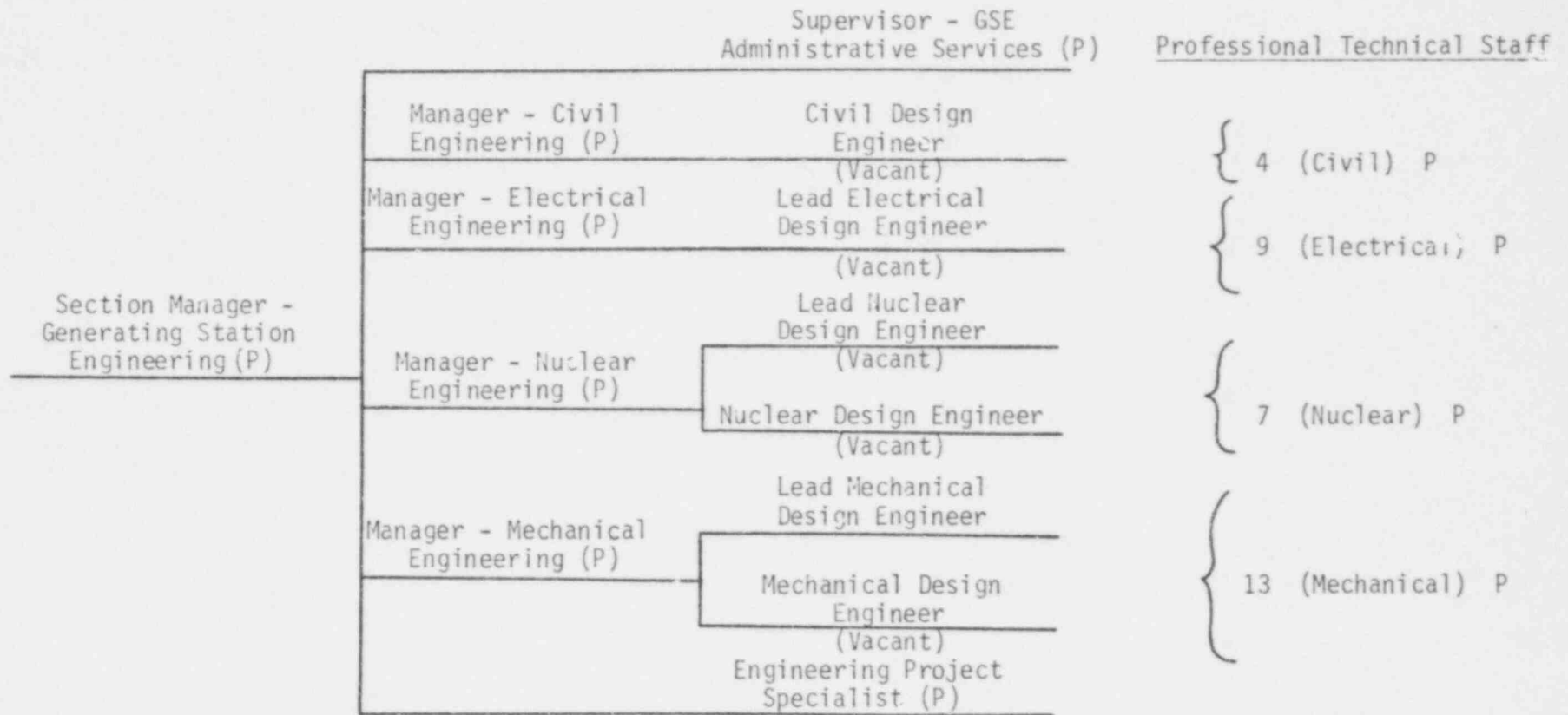


Figure 4.

Technical Services Section

Professional/Technical Staff

